October 2016 Investment Publications Highlights

Index-Linked Investing—A Curse for the Stability of Financial Markets around the Globe?

Lidia Bolla, Alexander Kohler, and Hagen Wittig, *The Journal of Portfolio Management*, vol 42, no. 3 (Spring 2016): 26–43

The authors analyze whether financial markets experience heightened risk related to increasingly prevalent index-linked investing. They conclude that as index-linked investing increases, so do the co-movements of risk factors, creating additional challenges for appropriately diversifying a portfolio.

Passive index-linked investments have become a popular way to gain exposure to market returns while minimizing exposure to individual company risks. In the United States alone, passive investments have grown from less than 10% of all investments in 1993 to more than 34% in 2010. The authors investigate equity markets in the United States, Eurozone, United Kingdom, Switzerland, and emerging markets to examine what kind of effect, if any, this increase in passive investments has on the co-movement of underlying securities. To do so, they analyze the co-movements of trading volume, price returns, and liquidity risk over time, and compare this to the development of index-linked investing.

The authors find a substantial increase in the co-movement of equity securities for all markets analyzed and a statistically significant relationship between that increase and the growth in index-linked investing. In other words, as indexlinked investing increased, the trading patterns of underlying securities homogenized, decreasing the benefit of diversification within a market. These results were confirmed across all company sizes, although for regions in earlier stages of indexlinked investing, large-cap companies were more affected. Risk factors in equity markets, particularly large caps, are becoming more correlated, meaning systemic risk is higher. This has significant implications for investors seeking to reduce systemic risk.

An increase in the similarity of risks linked to the growth in index-linked investing has reduced the benefit of diversification of securities within the market. The authors argue this means the proportion of index-linked investing within a market should be considered when creating a well-diversified portfolio. They suggest strategies such as alternative indexing and active management may be more attractive in higher co-movement environments, but note that further research is necessary.

How Index Trading Increases Market Vulnerability

Rodney N. Sullivan and James X. Xiong, *Financial* Analysts Journal, vol 68, no.2 (March/April 2012): 70–84

How has the increase in index investing over the past 20 years impacted the US equity market? The authors argue the change has contributed to a rise in systemic market risk and decreased investors' ability to diversify portfolios.

The authors believe that market correlations within US equities have increased since the mid-1990s. In the early 1980s, betas for value and small-cap equities were below those for large and growth stocks. Starting in 1997, betas for all four groups have shifted upward and converged, breaching 1.0 around 2004, suggesting that diversification benefits have been reduced.

At the same time, passively managed funds have grown twice as fast as actively managed funds and now make up about one-third of all fund assets. In particular, exchange-traded fund (ETF) shares have increased from close to 0% of total dollar trading volume in 2000 to around 35% in 2011. The rise in popularity of index investing leads to "basket trading," as groups of stocks are sold or purchased when indexes rebalance or in response to capital flows. While these trades are often spread over multiple orders to lessen the market impact, all passive investors following the same index, or indexes with similar definitions, will make similar trades and apply pressure to stock prices.

Looking at the cross-correlation dispersion in trading volume, the authors find additional evidence that diversification benefits have decreased as passive investing has become more popular. With active management, the timing of trades varies and involves a variety of equities. However, as ETF assets have grown, the dispersion in trading volume has fallen, which suggests stocks are being bought and sold together and at more regular times.

The authors find a statistically significant relationship between these higher betas and the growth in passive assets, but they lack proof the relationship is causal. Other factors could be to blame for the rise in systemic risk, including the growth of institutional assets, closet indexing by actively managed funds, and increased trading by institutional investors. In addition, the past 20 years have been marked by two major economic downturns, which could account for some of the increase. While the cause of increased market fragility is debatable, investors should consider the increased correlation in the subcomponents of the US equity market when modeling portfolios.

How Can a Strategy Still Work If Everyone Knows About It?

Clifford S. Asness, AQR Capital Management, August 2015

The author argues that factor strategies formerly known only to a modest number of people will continue to be a source of risk-adjusted excess returns (alpha), even as they become well known. He concludes that factor strategies should be added to portfolios that do not have them, and recommends that investors focus on marginally less crowded strategies that provide diversification across themes, geographies, and asset classes.

An investing strategy typically works because investors receive rational compensation for risk and/or make errors, such as over- or underreacting to market news or indicators. Strategies relying on risk should not see their excess returns disappear once they become known the premium exists because the strategy is risky, meaning the potential for periods of painful losses exists. Strategies that work by taking advantage of an investor error are less risky, so their excess can be susceptible to disappearing once the error is "discovered."

In either case, what can investors expect from a strategy once it becomes more well known? Lower-than-historical risk-adjusted excess returns due to a likely increase in crowdedness and volatility. This does not necessarily mean popular factor strategies will disappear as a source of alpha altogether. In fact, the author finds evidence suggesting that the crowdedness and volatility of value investing strategies he analyzes are not unusually different than historical levels. And while many factor strategies appear crowded today, they are not nearly as crowded as equities and bonds are relative to their history, which could increase the marginal benefit of including factor strategies in a portfolio.

In this market environment, where factor strategies have become more well known, investors should be realistic about how a strategy's risk/return profile will change as it becomes popular. Assuming lower-thanhistorical returns for factor strategies—and for more traditional equity and bond investments—is safe, but if the evidence suggests that the risk-adjusted excess returns have not disappeared and the strategy is available for a reasonable fee, investors should not ignore good diversifying strategies. The author suggests that factor strategies should be added to portfolios that lack them, and investors should plan to stick with these strategies for the long term. Going forward, the author recommends investors look to wellconstructed long/short factor strategies, as well as long-only, bottom-up smart beta and factor tilt strategies, for attractive long-term risk-adjusted returns.

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